

WHITE PAPER



USDA Forest Service

Pacific Northwest Region

Umatilla National Forest

WHITE PAPER F14-SO-WP-SILV-38

Umatilla National Forest Land and Resource Management Plan: Forestry Direction¹

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INTRODUCTION

In June 1990, Regional Forester of Pacific Northwest Region approved a new Land and Resource Management Plan for Umatilla National Forest (NF) (USDA Forest Service 1990). This 1990 Forest Plan provides standards, guidelines, and other direction influencing how natural resources will be managed.

Forestry sections of the Forest Plan (e.g., timber, reforestation, etc.) specify lands that are suitable for timber production, whether scheduled timber harvest was assumed for suitable lands within a management area, and whether salvage harvest, reforestation (tree planting), or road construction are allowed for a management area.

Information about forestry direction items is summarized in table 1. Footnotes to table 1 provide background information about ratings included in the table.

During preparation of an Umatilla NF Forest Plan, it was necessary to identify lands suitable for timber production. Some lands are fully suitable for timber production (i.e., there are few restrictions or constraints placed on timber management activities), whereas other lands have varying levels of restrictions.

¹ White papers are internal reports; they receive only limited review. Viewpoints expressed in this paper are those of the author – they do not necessarily represent official positions of USDA Forest Service.

When lands are examined for a Forest Plan timber suitability analysis, they are evaluated by using a hierarchical procedure – lands with high levels of restriction are identified first, followed by lands with fewer restrictions, and so on, eventually leaving lands with few or no restrictions.

Results of a timber suitability evaluation process are reflected in a data item called ‘Timber Component’ (see last column in table 1) – lands with a certain type of restriction are assigned to the same ‘series’ of timber component coding.

Lands with component codes in a ‘500’ series have the fewest timber-management restrictions; lands with component codes in an ‘800’ series have the most restrictions. Lands with component codes in a ‘600’ series have intermediate levels of timber-management restriction.

Timber component codes are assigned to forest management polygons (individual stands or management units), not to an overall Forest Plan management area, so analysts and planners should expect that there can be a wide variety of timber components represented in any specific planning area. This is to be expected because most large planning areas would be expected to contain a mix of suitable and unsuitable lands.

Note that timber components are determined for, and assigned to, individual polygons (stands). For this reason, any inclusion of unsuitable land within a larger parcel of suitable land should be delineated as a separate polygon if it is larger than the minimum mapping-unit size (2 acres for forested lands, but as small as 1 acre for nonforest lands – see white paper Silv-56). Inclusions smaller than a minimum mapping-unit size are otherwise ignored.

Most information summarized in table 1 was derived from management-area (MA) direction (MA direction is provided at end of chapter 4 in 1990 Forest Plan, beginning on page 4-94). This means that direction could vary depending on whether lands occur in one MA (such as C3) versus another (such as E2).

Note that for some items, no specific direction is provided in individual MA descriptions, in which case Forest-wide direction takes precedence (Forest-wide standards and guidelines appear in chapter 4 of 1990 Forest Plan, beginning on page 4-47).

During recent land-suitability analyses, land-use categories have been established that parallel these timber-coding concepts.

Land-use categories for an “Assessment of timber availability from forest restoration within the Blue Mountains of Oregon” (Rainville et al. 2008), for example, included reserves (akin to component codes in the ‘800’ series), restricted (akin to component codes in the ‘600’ series), and Active Forestry (akin to the ‘500’ component codes).

These ‘Rainville’ land-use categories were also used when completing recent Forest-wide assessments because a simplified classification is useful for broad-scale analyses (white paper F14-SO-WP-Silv-50, *Stand Density Conditions for the Umatilla NF: A Range of Variation Analysis*, provides an example of using broad-scale land-use categories for analysis purposes).

REFERENCES

Rainville, R.; White, R.; Barbour, J., tech. eds. 2008. Assessment of timber availability from forest restoration within the Blue Mountains of Oregon. Gen. Tech. Rep. PNW-GTR-752. Portland, OR: USDA Forest Service, Pacific Northwest Research Station. 65 p.

<https://www.treesearch.fs.fed.us/pubs/30559>

USDA Forest Service. 1990. Land and resource management plan: Umatilla National Forest. Portland, OR: USDA Forest Service, Pacific Northwest Region. Irregular pagination.

<http://www.fs.usda.gov/main/umatilla/landmanagement/planning>

TABLE 1: UMATILLA NF LAND AND RESOURCE MANAGEMENT PLAN: FORESTRY DIRECTION SUMMARY

Management Area Allocation	Suitable Lands?	Scheduled Harvest?	Salvage Harvest Permitted?	Planting Permitted?	Road Construction Permitted?	Timber Component
A1: Nonmotorized dispersed recreation	No	No	With conditions ²	Yes	No	802
A2: OHV recreation	No	No	With conditions ²	Yes	No	803
A3: Viewshed 1	Yes	Yes	Yes	Yes	Yes	642
A4: Viewshed 2	Yes	Yes	Yes	Yes	Yes	644
A5: Roaded natural	Yes	Yes	Yes	Yes	Yes	630
A6: Developed recreation	No	No	With conditions ²	Yes	Yes	804
A7: Wild and scenic rivers: wild	No	No	With conditions ²	Yes	No	806
A7: Wild and scenic rivers: scenic/recreation	Yes	Yes	Yes	Yes	Yes	630
A8: Scenic area	No	No	With conditions ²	Yes	No	805
A9: Special interest area	No	No	With conditions ²	Yes	Yes	801
A10: Wenaha-Tucannon special area	Yes	Yes	Yes	Yes	Yes	650
B1: Wilderness	No	No	No	No	No	800
B2: Wilderness (RNA in Wilderness)	No	No	No	No	No	800
B7: Wilderness (Wild/scenic rivers in Wild.)	No	No	No	No	No	800
C1: Dedicated old growth	No	No	With conditions ²	Yes	Yes	807
C2: Managed old growth	Yes	Yes	Yes	Yes	Yes	650
C3: Big game winter range	Yes	Yes	Yes	Yes	Yes	656
C3A: Sensitive big game winter range	No	No	With conditions ²	Yes	Yes	809
C4: Wildlife habitat	Yes	Yes	Yes	Yes	Yes	650
C5: Riparian and wildlife	Yes	Yes	Yes	Yes	Yes	660
C7: Special fish area: outside riparian zone	Yes	Yes	Yes	Yes	Yes	660
C7: Special fish area: inside riparian zone	No	No	With conditions ²	Yes	No	816
C8: Grass-tree mosaic (GTM)	No	No	With conditions ²	Yes ¹	Yes	807
D2: Research natural area (RNA)	No	No	No	No	No	801

Management Area Allocation	Suitable Lands?	Scheduled Harvest?	Salvage Harvest Permitted?	Planting Permitted?	Road Construction Permitted?	Timber Component
E1: Timber and forage	Yes	Yes	Yes	Yes	Yes	500
E2: Timber and big game	Yes	Yes	Yes	Yes	Yes	500
F2: Mill Creek municipal watershed: undeveloped	No	No	No	No	No	810
F3: High Ridge evaluation area	Yes	Yes	Yes	Yes	Yes	660
F4A: Walla Walla River watershed: roaded	Yes	Yes	Yes	Yes	Yes	660
F4: Walla Walla River watershed: unroaded	No	No	With conditions ²	Yes	No	810
PACFISH (RHCAs)	No	No	With conditions ²	Yes	No	816

Sources/Notes: ‘Management area allocation’ is from 1990 Umatilla NF Forest Plan (USDA Forest Service 1990). A ‘suitable lands?’ column shows whether forested lands in a management area are designated as suitable for timber production by a 1990 Forest Plan. A ‘scheduled harvest?’ column shows whether timber is managed on a scheduled (yes) or nonscheduled (no) basis in the context of a 1990 Forest Plan. ‘Salvage harvest permitted?’, ‘planting permitted?’, and ‘road construction permitted?’ columns show whether these activities are allowed by Forest Plan management area direction. A ‘timber component’ column provides an appropriate timber component code to use for forested lands in the management area when recording treatment information in TRACS-Silva, FACTS, and other database systems.

¹ Timber management activities (harvest, reforestation, others) may be used only where analysis shows they are needed to achieve the objectives for big game habitat and for other wildlife species.

² Salvage harvest might be allowed under certain circumstances, which differ slightly by management area (refer to 1990 Forest Plan for specifics).

APPENDIX: SILVICULTURE WHITE PAPERS

White papers are internal reports, and they are produced with a consistent formatting and numbering scheme – all papers dealing with Silviculture, for example, are placed in a silviculture series (Silv) and numbered sequentially. Generally, white papers receive only limited review and, in some instances pertaining to highly technical or narrowly focused topics, the papers may receive no technical peer review at all. For papers that receive no review, the viewpoints and perspectives expressed in the paper are those of the author only, and do not necessarily represent agency positions of the Umatilla National Forest or the USDA Forest Service.

Large or important papers, such as two papers discussing active management considerations for dry and moist forests (white papers Silv-4 and Silv-7, respectively), receive extensive review comparable to what would occur for a research station general technical report (but they don't receive blind peer review, a process often used for journal articles).

White papers are designed to address a variety of objectives:

- (1) They guide how a methodology, model, or procedure is used by practitioners on the Umatilla National Forest (to ensure consistency from one unit, or project, to another).
- (2) Papers are often prepared to address ongoing and recurring needs; some papers have existed for more than 20 years and still receive high use, indicating that the need (or issue) has long standing – an example is white paper #1 describing the Forest's big-tree program, which has operated continuously for 25 years.
- (3) Papers are sometimes prepared to address emerging or controversial issues, such as management of moist forests, elk thermal cover, or aspen forest in the Blue Mountains. These papers help establish a foundation of relevant literature, concepts, and principles that continuously evolve as an issue matures, and hence they may experience many iterations through time. [But also note that some papers have not changed since their initial development, in which case they reflect historical concepts or procedures.]
- (4) Papers synthesize science viewed as particularly relevant to geographical and management contexts for the Umatilla National Forest. This is considered to be the Forest's self-selected 'best available science' (BAS), realizing that non-agency commenters would generally have a different conception of what constitutes BAS – like beauty, BAS is in the eye of the beholder.
- (5) The objective of some papers is to locate and summarize the science germane to a particular topic or issue, including obscure sources such as master's theses or Ph.D. dissertations. In other instances, a paper may be designed to wade through an overwhelming amount of published science (dry-forest management), and then synthesize sources viewed as being most relevant to a local context.
- (6) White papers function as a citable literature source for methodologies, models, and procedures used during environmental analysis – by citing a white paper, specialist reports can include less verbiage describing analytical databases, techniques, and so forth, some of which change little (if at all) from one planning effort to another.
- (7) White papers are often used to describe how a map, database, or other product was developed. In this situation, the white paper functions as a 'user's guide' for the new product. Examples include papers dealing with historical products: (a) historical fire extents for the Tucannon watershed (WP Silv-21); (b) an 1880s map developed from General Land Office survey notes (WP Silv-41); and (c) a

description of historical mapping sources (24 separate items) available from the Forest's history website (WP Silv-23).

The following papers are available from the Forest's website: [Silviculture White Papers](#)

Paper #	Title
1	Big tree program
2	Description of composite vegetation database
3	Range of variation recommendations for dry, moist, and cold forests
4	Active management of Blue Mountains dry forests: Silvicultural considerations
5	Site productivity estimates for upland forest plant associations of Blue and Ochoco Mountains
6	Blue Mountains fire regimes
7	Active management of Blue Mountains moist forests: Silvicultural considerations
8	Keys for identifying forest series and plant associations of Blue and Ochoco Mountains
9	Is elk thermal cover ecologically sustainable?
10	A stage is a stage is a stage...or is it? Successional stages, structural stages, seral stages
11	Blue Mountains vegetation chronology
12	Calculated values of basal area and board-foot timber volume for existing (known) values of canopy cover
13	Created opening, minimum stocking, and reforestation standards from Umatilla National Forest Land and Resource Management Plan
14	Description of EVG-PI database
15	Determining green-tree replacements for snags: A process paper
16	Douglas-fir tussock moth: A briefing paper
17	Fact sheet: Forest Service trust funds
18	Fire regime condition class queries
19	Forest health notes for an Interior Columbia Basin Ecosystem Management Project field trip on July 30, 1998 (handout)
20	Height-diameter equations for tree species of Blue and Wallowa Mountains
21	Historical fires in headwaters portion of Tucannon River watershed
22	Range of variation recommendations for insect and disease susceptibility
23	Historical vegetation mapping
24	How to measure a big tree
25	Important Blue Mountains insects and diseases
26	Is this stand overstocked? An environmental education activity
27	Mechanized timber harvest: Some ecosystem management considerations
28	Common plants of south-central Blue Mountains (Malheur National Forest)
29	Potential natural vegetation of Umatilla National Forest
30	Potential vegetation mapping chronology
31	Probability of tree mortality as related to fire-caused crown scorch
32	Review of "Integrated scientific assessment for ecosystem management in the interior Columbia basin, and portions of the Klamath and Great basins" – Forest vegetation
33	Silviculture facts

Paper #	Title
34	Silvicultural activities: Description and terminology
35	Site potential tree height estimates for Pomeroy and Walla Walla Ranger Districts
36	Stand density protocol for mid-scale assessments
37	Stand density thresholds related to crown-fire susceptibility
38	Umatilla National Forest Land and Resource Management Plan: Forestry direction
39	Updates of maximum stand density index and site index for Blue Mountains variant of Forest Vegetation Simulator
40	Competing vegetation analysis for southern portion of Tower Fire area
41	Using General Land Office survey notes to characterize historical vegetation conditions for Umatilla National Forest
42	Life history traits for common Blue Mountains conifer trees
43	Timber volume reductions associated with green-tree snag replacements
44	Density management field exercise
45	Climate change and carbon sequestration: Vegetation management considerations
46	Knutson-Vandenberg (K-V) program
47	Active management of quaking aspen plant communities in northern Blue Mountains: Regeneration ecology and silvicultural considerations
48	Tower Fire...then and now. Using camera points to monitor postfire recovery
49	How to prepare a silvicultural prescription for uneven-aged management
50	Stand density conditions for Umatilla National Forest: A range of variation analysis
51	Restoration opportunities for upland forest environments of Umatilla National Forest
52	New perspectives in riparian management: Why might we want to consider active management for certain portions of riparian habitat conservation areas?
53	Eastside Screens chronology
54	Using mathematics in forestry: An environmental education activity
55	Silviculture certification: Tips, tools, and trip-ups
56	Vegetation polygon mapping and classification standards: Malheur, Umatilla, and Wallowa-Whitman National Forests
57	State of vegetation databases for Malheur, Umatilla, and Wallowa-Whitman National Forests
58	Seral status for tree species of Blue and Ochoco Mountains

REVISION HISTORY

December 2016: First version of this white paper (2 p.) was prepared in January 2009 as a ‘cheat sheet’ to summarize important forestry direction from 1990 Umatilla NF Forest Plan.

This update reformatted the original white paper into a contemporary style by adding a first page ‘white paper’ header, assigning a white paper number, adding an Introduction section, and adding an appendix describing a silviculture white paper system.